



NAVSEA Automatic Identification and Data Capture (AIDC) Project

Program Overview
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AIDC Project
SEA 04L514



Briefing Outline

- AIDC Background
- NAVSEA AIDC Project History
- AIDC Initiatives
 - Underway and
 - Planned
- Summary



DoD Definition ***Automatic Identification Technology*** ***(Automatic Identification Data Capture)***

“ AIT (AIDC) is a suite of technologies that enable the automatic capture of source data, thereby enhancing the ability to identify, track, document and control deploying and redeploying forces, equipment, personnel and sustainment cargo. ”

DoD Logistics AIT CONOPS – November 1997

AIT devices can automatically identify,
locate/track,
and monitor supplies and equipment



AIT/AIDC FUTURE VISION

The Navy vision, as stated in the Navy Logistics AIT Implementation Plan (SEP 2000) is:

Navy AIT will provide the proper mix of technologies that allows users to efficiently and effectively capture, aggregate, and transfer data and information, and share the data among AISs by using the optimum technology for a particular application. AIT will facilitate data collection and flow to all AISs to better achieve asset visibility with minimal personnel intervention, both afloat and ashore. The Navy vision for AIT is applicable throughout the Navy, though the initial emphasis is on the supply and

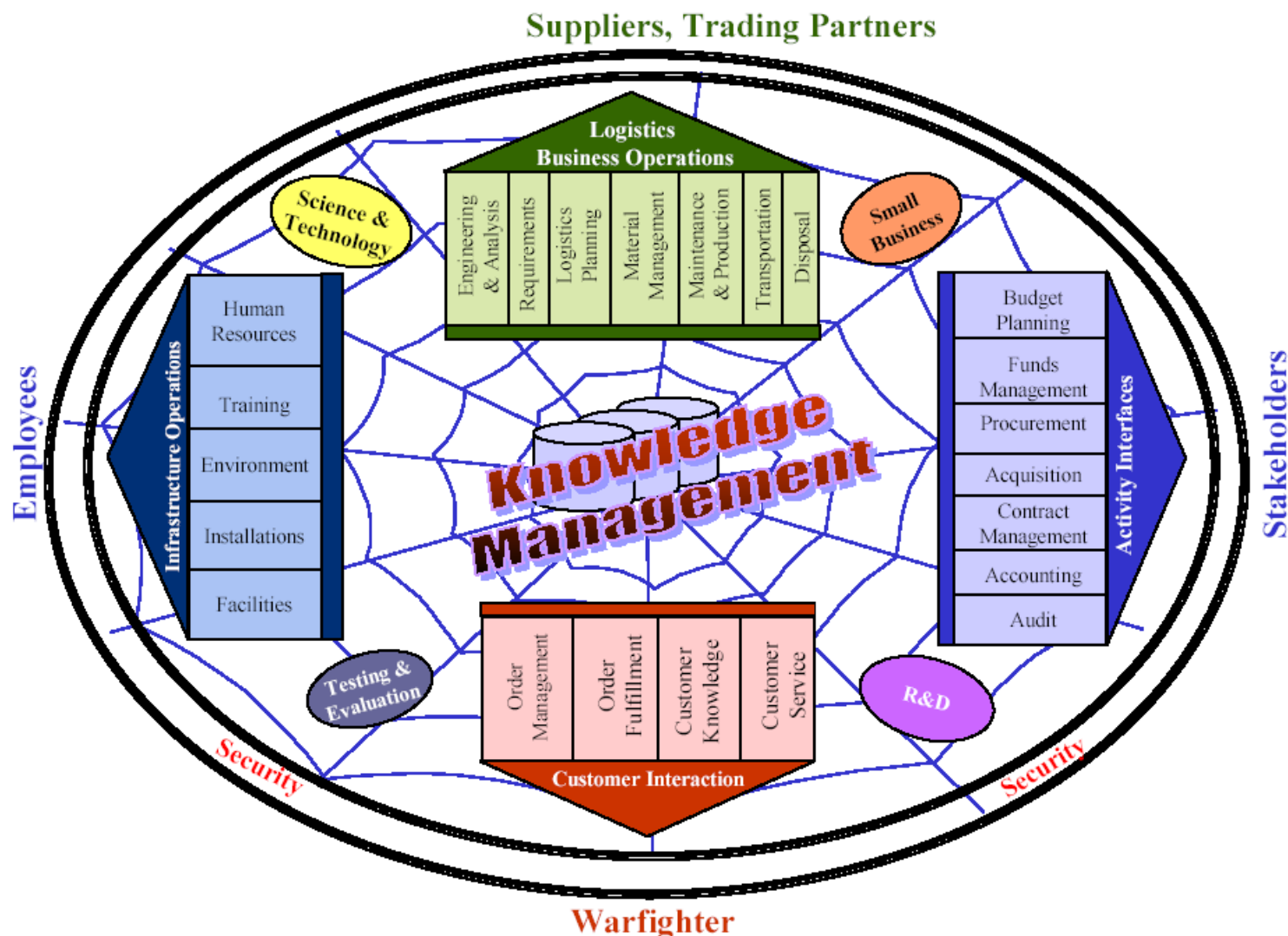
However, we are now in a new phase of AIT/AIDC integration from

end to end, in our Supply Chain, and into our ships

The Goal of AIDC



The Objective: Enterprise Wide Information Integration



What AIDC Does for Us

Benefits

AIT improves Naval logistics and enhances war fighting capability by:

- Improving source data capture
- Speeding data processing and transmission
- Improving data accuracy
- Facilitating decision making
- Supporting material accountability
- Contributing to total asset visibility
- Providing portable data file capability





AIDC and SEA POWER 21

AIDC: Where and How

AIDC = Data Accuracy + Timeliness + Efficiency

Supply Chain Logistics Functional areas that

AIDC supports:

➤ Configuration Management

➤ Maintenance

➤ Validations

➤ Damage

Control/Communications

➤ Financial

➤ Food Service

➤ Hazardous Material

➤ Ordnance

➤ Personnel

➤ Safety

➤ Security

➤ Ship Service

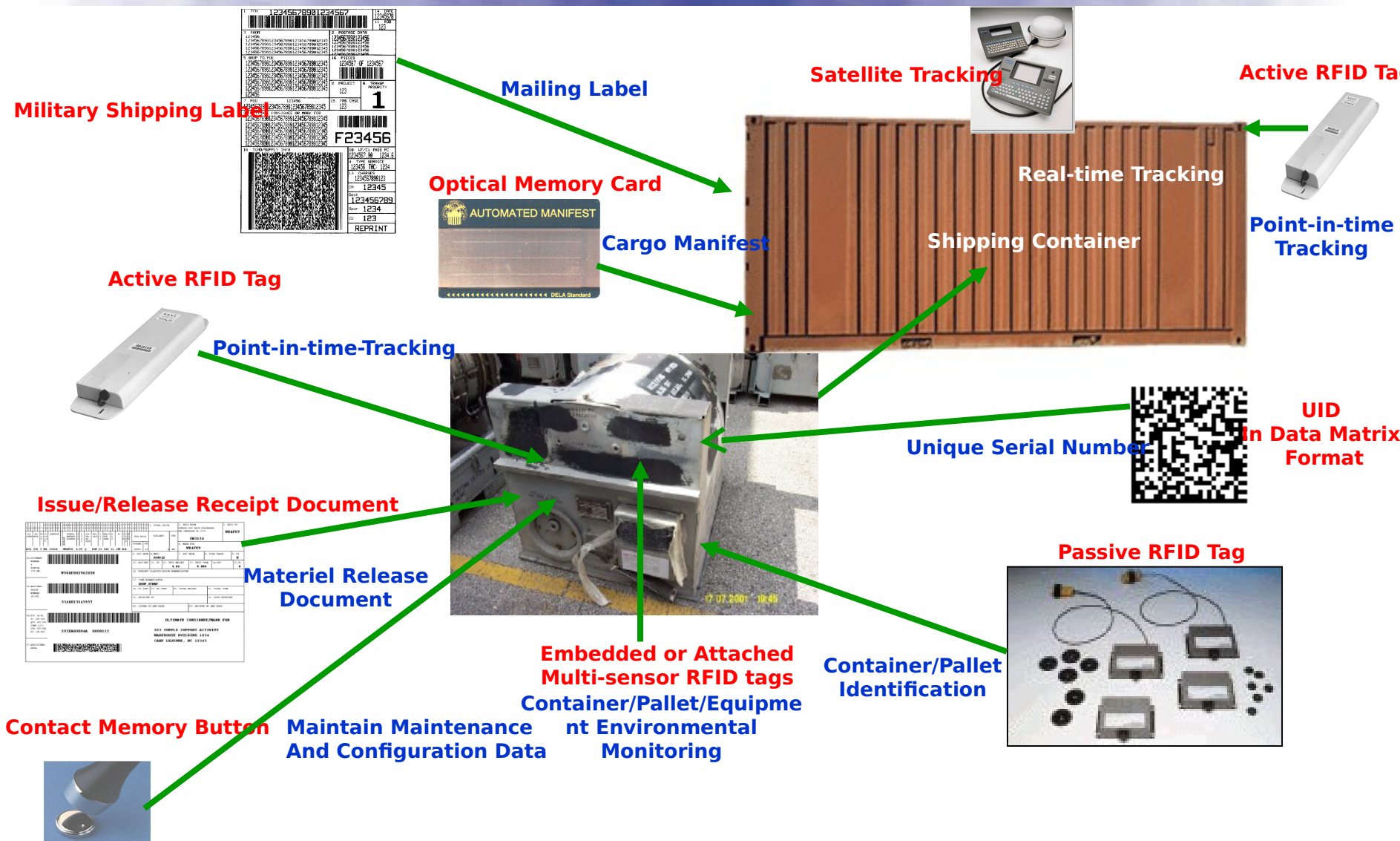
➤ Supply
Management

➤ Transportation



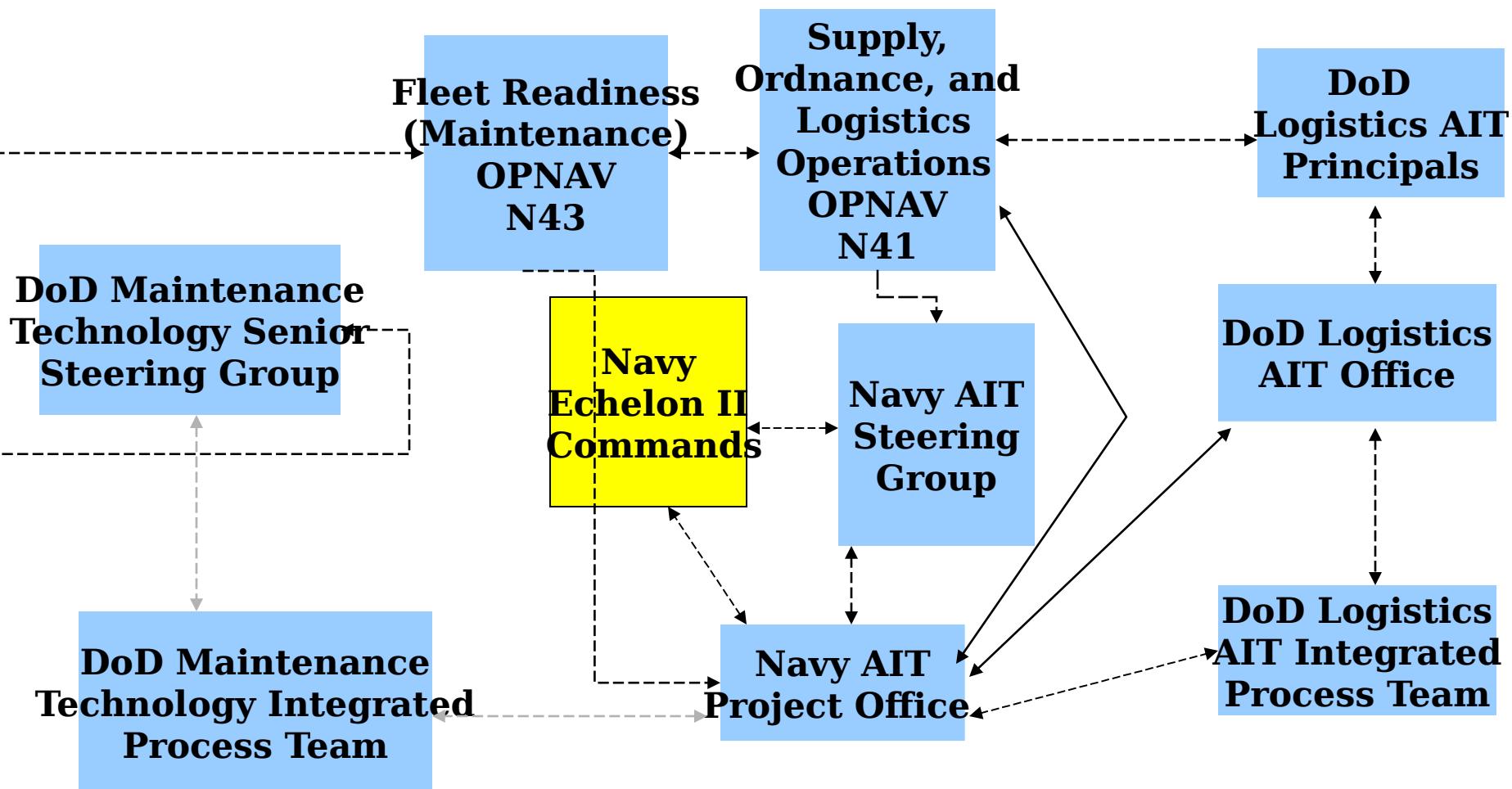
The Challenge

Integrating AIDC into our business processes





DoD AIT/AIDC Organization





NAVSEA AIT/AIDC History

- 1980 to Present
 - NAVSEA Technical Centers have routinely supported Navy AIT initiatives on a fee for service basis.
 - No central Headquarters coordination.
- FY01
 - SEA 04L5 recognized need for more central management of AIT/AIDC and established AIDC Project responsibilities.
 - Assumed voting member role on the Navy AIT Steering Group.
- FY02
 - NAVSEA 04L5 establish NAVSEA AIDC Steering Group to indoctrinate membership in AIDC policies and technical benefits.
 - Core team established to expedite the development of a NAVSEA AIDC corporate enterprise strategy.
- FY03
 - In the process of drafting NAVSEA AIDC policy guidance
 - Established AIDC page to NAVSEA Configuration Management web site
 - Commenced conducting coordinated pilot AIDC projects



NAVSEA Forums Being Utilized by AIDC Project

- AIDC Steering Group (and Core Group)
 - Unique Identifier (UID) and Electronic Product Code (EPC) Indoctrination
 - RFID Implementation
- NSWC Carderock Det Philadelphia
- DD-X Program
- CVN (X) and NAVSUP Summits
- LCAC Program
- Regional Maintenance
- Naval Shipyards



NAVSEA AIDC Project Office Coordinated Initiatives

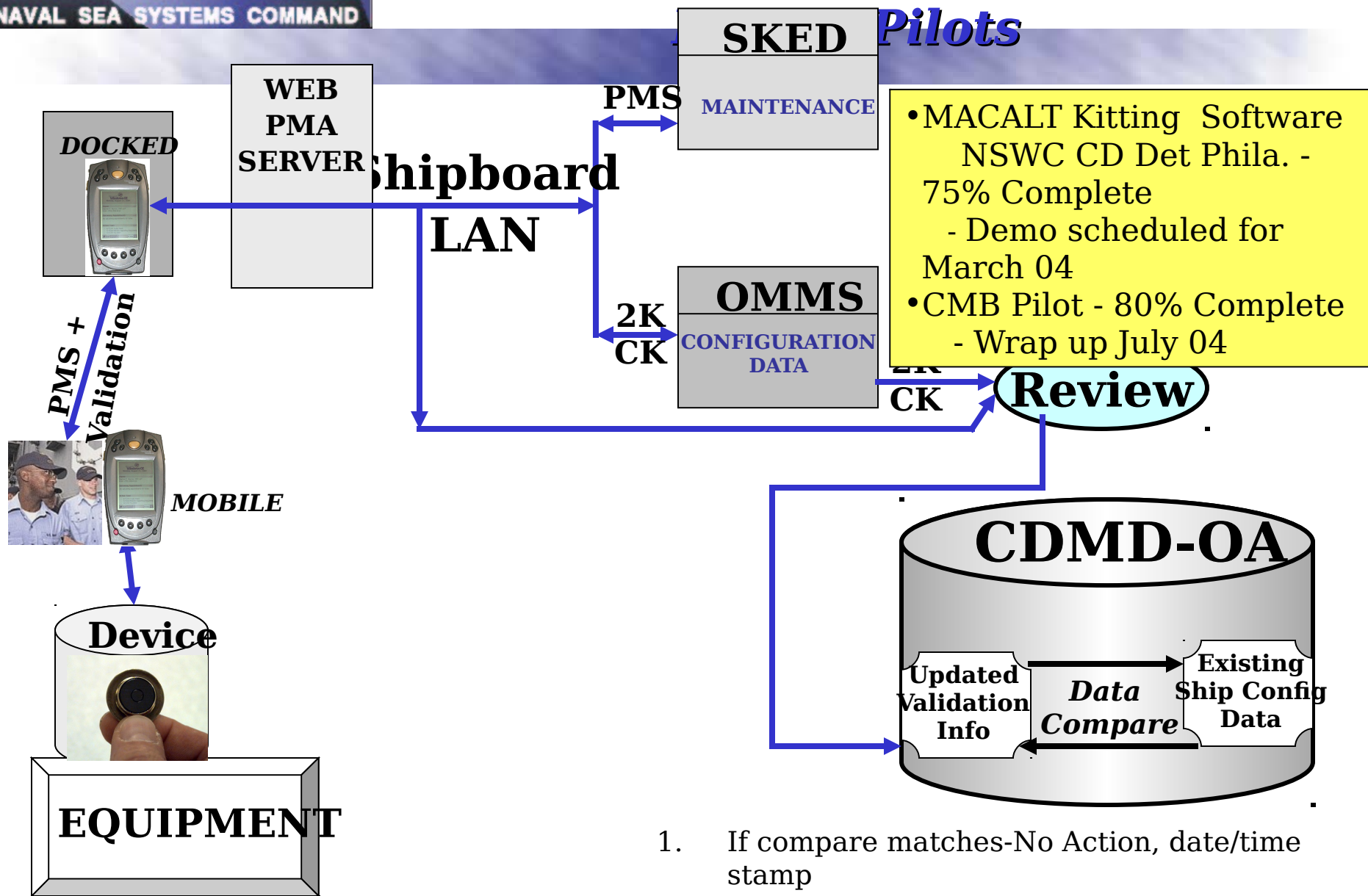
- **Underway:**

- Configuration Management - Serial Number Tracking
 - MACHALT Kitting Pilot
 - Validation Tool Contact Memory Button Pilot- Northrop Grumman Ships Systems
- Electronic Portable Maintenance Assistant (ePMA)
- Smart Stores

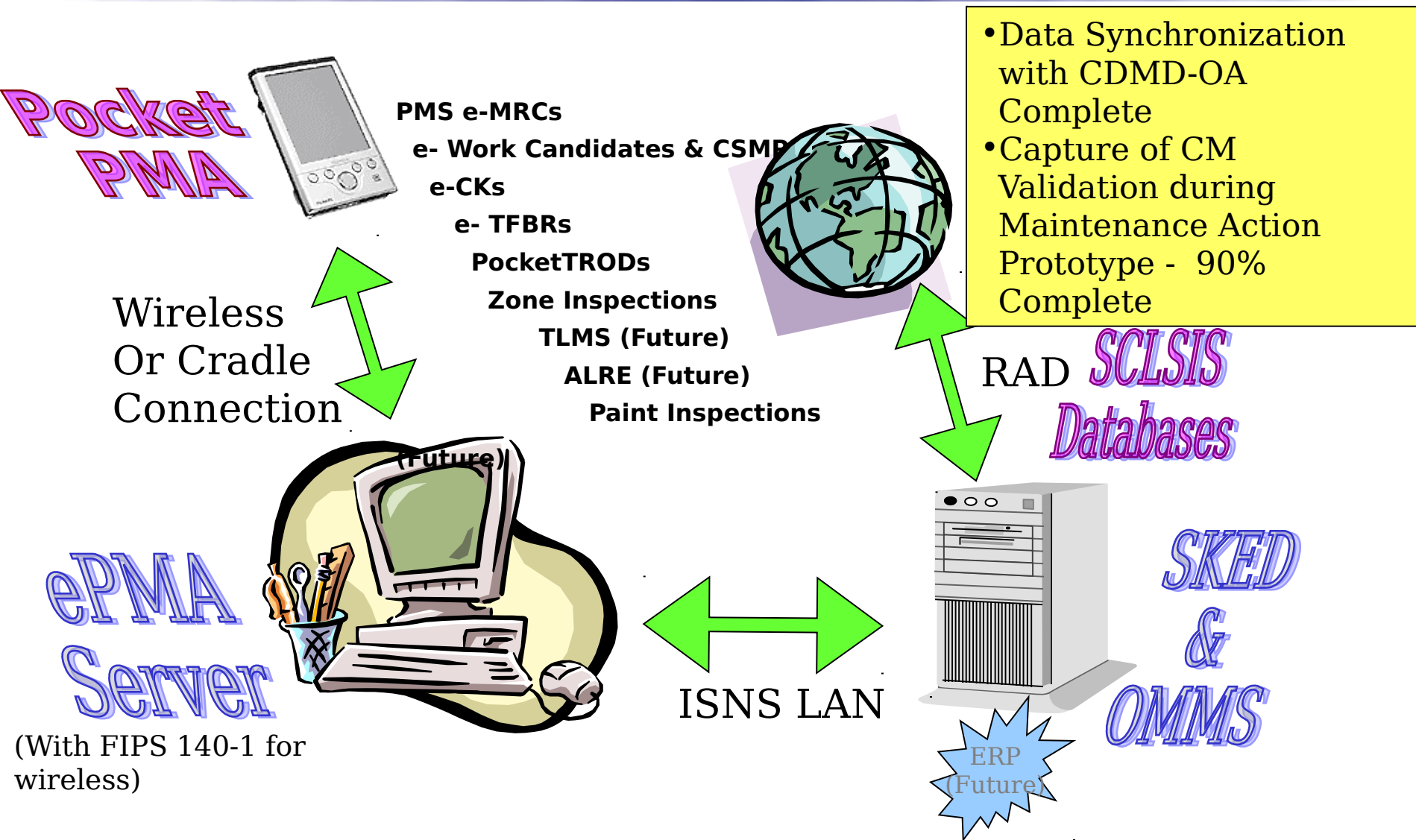
- **FY 04 Planned:**

- DDX Tracking High Dollar Valves
- Training Activity Material Management
- Possible expansion NAVSPECWARCOM CBR Database
- Brief SOCOM to Standardize Initiative
- NAVSEA Radiac Equipment Tracking

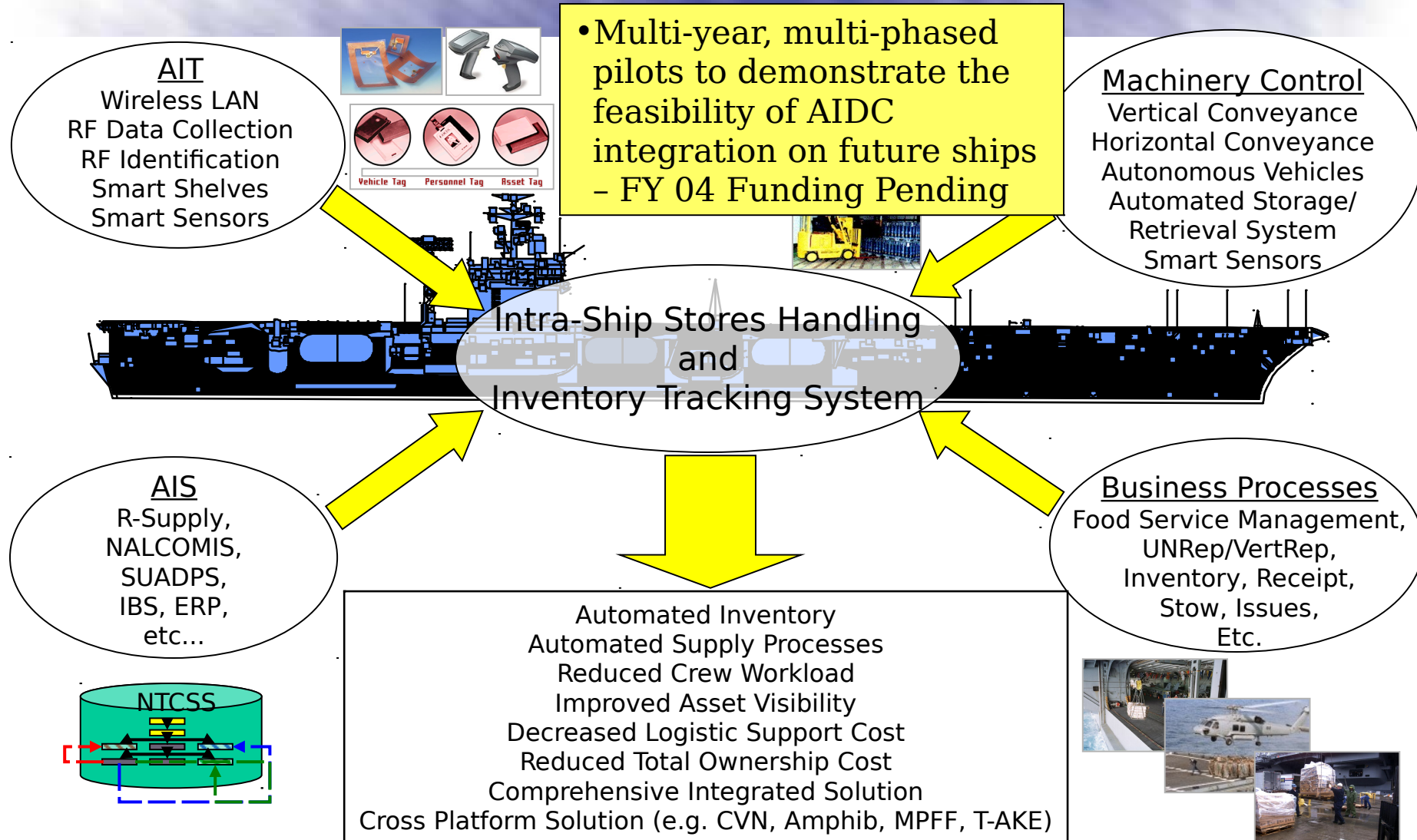
AIDC CM and SNT MACHALT and Contact Memory Pilots



Electronic Maintenance Assistant (ePMA)

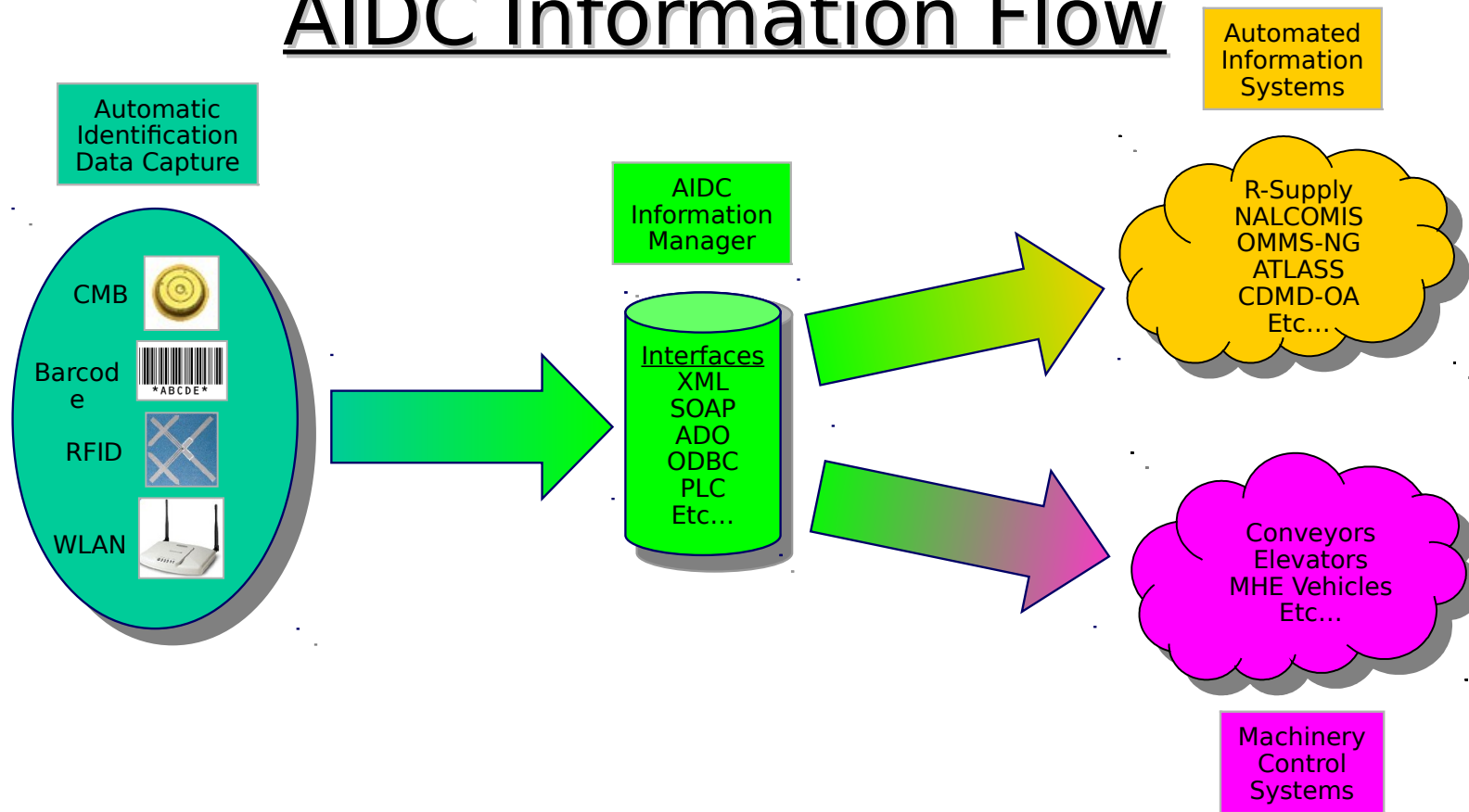


Smart Stores Project Concept



Smart Stores Future Business Process

AIDC Information Flow





An AIDC Outcome: Future AIDC Information Manager

Benefits

- Asset Visibility
- Inventory Automation
- Common User Interface
- MHE Interface
- AIDC Interface
- AIS Interface
- Open Architecture
- Standards Based
- Scalable
- Real-Time

Smart Stores Material Manager (v1.0.0)

File Compartments Asset Management Material Handling System Help

Grab Zoom In Zoom Out Zoom All Get Info Query Ship's Inventory RIP

CVN-73 DECK 5

NSN	PartNumber	Description	UI	Quantity	CompartmentNum
8894245754521	k12311	ice cream, chunky monk	case	0	5-180-3-A
7720003390002	gl-978	green beans, french cut	bag, 5lb	0	5-180-3-A
8740987265001	jc88gn4	instant spuds	case	17	5-180-03-A
5930004480001	qo7776	quaker oats	can, 5lb	15	5-180-03-A
711207593119	tie-1-on	yeungling traditional lag	keg	0	5-180-1-A
5523477965218	20-66584	mac and cheese	case	10	5-180-03-A
5568793251223	55689-01	corn flakes	box, 3lb	13	5-180-03-A
8879652335467	012-3325	crushed tomatoes	can, 1.5gal	19	5-180-03-A
7899625413624	33625-89	tomato paste	box, 12 can	16	5-180-03-A
8856326484923	55-2019	spaghetti	box, 2lb	36	5-180-03-A
6675924456358	33021-1	garlic powder	can, 2lb	7	5-180-03-A

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6675924456358	33021-1	garlic powder	can, 2lb	7	5-180-03-A

Start Smart Stores Material Ma... Ship's Inventory Inventory for 5-180-03-A 1:24 PM

Smart Stores
Total Asset Visibility



DoD Vision for Item Marking

- Need a Unique Identification (UID) methodology to mark DoD tangible items in a machine readable format in order to:
 - Facilitate item tracking in DoD business systems
 - Provide reliable and accurate data for management, financial, accountability and asset management purposes
- Objective: To create a policy establishing a strategic imperative for uniquely identifying tangible items
- Initiate, as soon as possible, a DoD-wide program to:
 - Integrate the use of international data standards and commercial item markings that can be unique and unambiguous
 - Avoid imposing unique government data requirements



Data Matrix
2D Barcode



Unique IDentification (UID)

UID is . . .

. . . the set of data for tangible assets that is globally unique and unambiguous, ensures data integrity and data quality throughout life, and supports multi-faceted business applications and

EID

370521



Original Part Number

1234

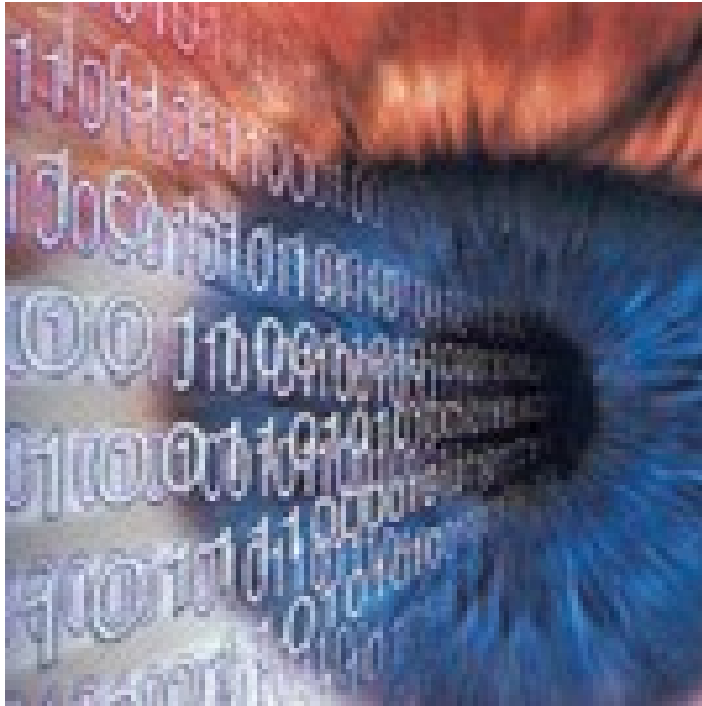


Serial Number

786950



The Electronic Product Code (EPC)



www.epcglobalinc.org

... will make organizations more effective by enabling immediate, automatic, and accurate item identification and information sharing through a global, standardized network using passive RFID tags each with this



Summary

The NAVSEA AIDC Project Office and the NAVSEA AIDC Steering Group are aggressively pursuing cost-effective applications of AIDC, wherever it can be beneficially integrated into our logistics business processes and our engineering quality assurance and equipment monitoring functions.

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(Click on the "AIDC" Tab)